Steps in Portland Harbor Stormwater Evaluation

5/06

Section 5.3 of the JSCS says, stormwater sediment (i.e., catch basin or line solids) & stormwater discharge (i.e., whole water) sampling may be required at upland sites to characterize & evaluate the stormwater pathway & to determine if source control measures may be required.

Appendix D of the JSCS presents guidance for characterizing catch basin sediments & stormwater (water fraction) at upland sites in PH. However, Appendix D may not be as concise & transparent as could be to be as useful as possible. Here is a distillation of Appendix D & what we expect the PH stormwater evaluation to include:

Step 1- Collect & Document Basic Site Information

-Identify potential contaminant sources to site stormwater

-Understand the site's stormwater system (i.e., drainage basins, collections system, lines, & discharge points)

-Understand current stormwater controls (e.g. Stormwater Pollution Control Plans (SWPCP), BMPs, etc)

Step 2- Select Sample Analytes for Catch Basin Solids Sampling

-Site-specific COI

-Consider ubiquitous PH COIs (PCBs & phthalates)

-Consider other data (e.g., PH sediment data near outfall, NPDES permit parameters, etc)

Step 3- Design & Implement Plan to Sample Catch Basin Solids

-How- Use BES's "Guidance for Sampling Catch Basin Solids" (JSCS Attachment C of Appendix D)

-Where- Use SWPCP or knowledge of site.

-When- 1 or more times if you suspect variability of catch basin solids

Step 4- Screen Catch Basin Solids Against JSCS SLVs

-If catch basin solids are below SLVs, then additional stormwater assessment is not necessary unless you suspect catch basin solids don't reflect the potential contaminant load conveyed by stormwater, because, for instance:

- Catch basin solids are predominantly composed of coarse grain material (no fines)
- Stormwater is suspected to contain appreciable dissolved phase contaminants

-If catch basin solids exceed SLVs, then:

- Consider whether site characterization is complete (i.e., has the source(s) of contamination seen in the catch basin solids been identified)?
- Consider cleanout of catch basins & lines
- Consider designing & implementing BMPs
- Monitor stormwater (i.e., whole water) as described in remaining steps

Step 5- Design & Implement Stormwater Sampling Plan

-Use existing guidance to help develop stormwater sampling plan (e.g., JSCS Attachment D of Appendix D, site's SWPCP)

-Use site information & data from catch basin solid sampling to identify analytes

-The plan should generally include sampling during 4 separate storm events per year

Step 6- Screen Stormwater Against JSCS SLVs

-If stormwater is below SLVs, then additional stormwater assessment is not necessary unless you suspect stormwater samples don't reflect the potential contaminant load conveyed by stormwater

-If stormwater exceeds SLVs, then:

- Consider designing & implementing BMPs
- Consider designing & implementing a contaminant mass loading evaluation to determine if site stormwater source control is needed